Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. **(Currently Amended)** A method of providing speaker adaptation in speech recognition, said method comprising the steps of:

providing at least one speech recognition model;

accepting speaker data;

generating a word lattice having a plurality of paths based on the speaker data, wherein the step of generating the word lattice comprises considering language model probabilities by incorporating the language model probabilities into a transition probability; and

adapting at least one of the speaker data and the at least one speech recognition model with respect to the generated word lattice in a manner to maximize the likelihood of the speaker data.

2. **(Original)** The method according to Claim 1, wherein said step of generating a word lattice comprises generating a maximum a-posteriori probability word lattice.

3. **(Original)** The method according to Claim 2, wherein said step of generating a maximum a-posteriori probability word lattice comprises:

determining posterior state occupancy probabilities for each state in the speaker data at each time;

determining posterior word occupancy probabilities by summing over all states interior to each word in the speaker data; and

determining at least one likeliest word at each frame of the speaker data.

4. **(Original)** The method according to Claim 2, wherein said step of generating a word lattice further comprises connecting word traces into a lattice.

5. **(Original)** The method according to Claim 1, further comprising the step of discarding interpretations associated with low confidence.

6. **(Original)** The method according to Claim 5, wherein said discarding step comprises determining posterior phone probability.

7. **(Original)** The method according to Claim 1, wherein said adapting step comprises performing maximum likelihood linear regression on the speaker data.

8. **(Currently Amended)** An apparatus for providing speaker adaptation in speech recognition, said apparatus comprising:

at least one speech recognition model;

an accepting arrangement which accepts speaker data;

a lattice generator which generates a word lattice having a plurality of paths based on the speaker data, wherein the generation of the word lattice comprises consideration of language

model probabilities by incorporating the language model probabilities into a transition probability; and

a processing arrangement which adapts at least one of the speaker data and the at least one speech recognition model with respect to the generated word lattice in a manner to maximize the likelihood of the speaker data.

9. **(Original)** The apparatus according to Claim 8, wherein said generator is adapted to generate a maximum a-posteriori probability word lattice.

10. **(Original)** The apparatus according to Claim 9, wherein said generator is adapted to:

determine posterior state occupancy probabilities for each state in the speaker data at each time;

determine posterior word occupancy probabilities by summing over all states interior to each word in the speaker data; and

determine at least one likeliest word at each frame of the speaker data.

11. **(Original)** The apparatus according to Claim 9, wherein said generator is further adapted to connect word traces into a lattice.

12. **(Original)** The apparatus according to Claim 8, further comprising a discarding arrangement which discards interpretations associated with low confidence.

13. **(Original)** The apparatus according to Claim 12, wherein said discarding arrangement is adapted to determine posterior phone probability.

14. **(Original)** The apparatus according to Claim 8, wherein said processing arrangement is adapted to perform maximum likelihood linear regression on the speaker data.

15. **(Currently Amended)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing speaker adaptation in speech recognition, said method comprising the steps of:

providing at least one speech recognition model;

accepting speaker data;

generating a word lattice having a plurality of paths based on the speaker data, wherein the step of generating the word lattice comprises considering language model probabilities by incorporating the language model probabilities into a transition probability; and

adapting at least one of the speaker data and the at least one speech recognition model with respect to the generated word lattice in a manner to maximize the likelihood of the speaker data.

16. **(Currently Amended)** The method according to Claim 3, wherein said step of determining posterior state occupancy probabilities for each state in the speaker data at each time comprises the use of the following formula:

$$P\left(S_t = s \mid y_1^T\right) = \frac{\alpha_s^t \beta_s^t}{P\left(y_1^T\right)}$$

where $\alpha_s^t = P(y_1^t, S_t=s)$ and $\beta_s^t = P(y_{t+1}^T \mid S_t=s)$ for states s and a set of observations T, and where y_1^T represents T observation frames of adaptation data.

17. **(Previously Presented)** The method according to Claim 16, wherein said step of determining posterior word occupancy probabilities by summing over all states interior to each word in the speaker data comprises a determination using the following formula at each time frame:

$$\sum_{s \in w_i} \frac{\alpha_s' \beta_s'}{P\left(y_1^T\right)}$$

where w_i is the set of states in word W_i.

18. **(Currently Amended)** The method according to Claim 10, wherein said determining posterior state occupancy probabilities for each state in the speaker data at each time comprises the use of the following formula:

$$P\left(S_t = s \mid y_1^T\right) = \frac{\alpha_s' \beta_s'}{P\left(y_1^T\right)}$$

where $\alpha_s' = P(y_1', S_t=s)$ and $\beta_s' = P(y_{t+1}^T \mid S_t=s)$ for states s and a set of observations T, and where y_t^T represents T observation frames of adaptation data.

19. **(Previously Presented)** The apparatus according to Claim 18, wherein said determining posterior word occupancy probabilities by summing over all states interior to each word in the speaker data comprises a determination using the following formula at each time frame:

$$\sum_{s \in w_i} \frac{\alpha_s^t \beta_s^t}{P(y_1^T)}$$

where w_i is the set of states in word W_i.